

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims

1-6. (Canceled)

7. (Currently Amended) ~~The method of claim 1,~~ A method for converting an amino ether alcohol to an amino ether amine, the method comprising contacting a catalyst comprising at least one of zinc oxide or a zinc salt, and at least one of copper oxide or a copper salt, with a vapor phase mixture comprising the amino ether alcohol and an amine, wherein the amino ether alcohol has the formula $\text{NR}^1\text{R}^2\text{R}^3$, wherein R^1 and R^2 each individually is selected from the group consisting of H, C1-C10 alkyl, a C6-C10 aryl, and a C6-C10 aralkyl, R^3 is a C4-C10 alkyl group having within it an ether linkage and also containing at least one hydroxyl group, and the amine has the formula, NHR^4R^5 , wherein R^4 and R^5 each individually is H, a C1-C10 alkyl, a C6-C10 aryl, or a C6-C10 aralkyl group, provided that no more than one of R^4 and R^5 is H, wherein the contacting is performed at a temperature ranging from 120 °C to 300 °C and a pressure ranging from 0 to 500 psig (101 to 3549 kPa).

8. (Currently Amended) The method of claim 74, wherein the contacting is performed at a temperature ranging from 180 °C to 220 °C and a pressure ranging from 0 to 100 psig (101 to 791 kPa).

9. (Original) The method of claim 8, wherein the contacting is performed at a pressure of 40 to 80 psig (377 to 653 kPa).

10. (Currently Amended) The method of claim 74, wherein the contacting is performed in a fixed bed tubular reactor.

11. (Currently Amended) The method of claim 74, wherein a weight ratio of copper to zinc in the catalyst ranges from 0.3 to 6.

12. (Currently Amended) The method of claim 74, wherein a weight ratio of copper to zinc in the catalyst ranges from 0.4 to 3.

13. (Currently Amended) The method of claim 74, wherein the catalyst further comprises a promoter comprising at least one of an alkali metal, an alkaline earth metal, lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, or~~and~~ terbium, the promoter present at 0.05 to 5 wt%, based on a total weight of the catalyst.

14. (Original) The method of claim 13, wherein the promoter is present at 0.2 to 2 wt%, based on the total weight of the catalyst.

15. (Original) The method of claim 13, wherein the promoter is present at 0.3 to 1.5 wt%, based on the total weight of the catalyst

16. (Currently Amended) The method of claim 13, wherein the promoter comprises at least one of potassium, rubidium, or ~~and~~ cesium.

17. (Currently Amended) The method of claim 13, wherein the promoter comprises at least one of magnesium, calcium, or ~~and~~ strontium.

18. (Currently Amended) The method of claim 13, wherein the promoter comprises at least one of lanthanum, cerium, or ~~and~~ praseodymium.

19. (Currently Amended) The method of claim 13, wherein the catalyst further comprises at least one of Al_2O_3 or ~~and~~ SiO_2 .

20. (Currently Amended) The method of claim 134 wherein the method further comprises, prior to said contacting, treating the catalyst with hydrogen under conditions sufficient to form an activated catalyst.

21. (Original) The method of claim 20 wherein the hydrogen is generated by interaction of the catalyst with an organic compound.

22. (Currently Amended) The method of claim ~~131~~ wherein the vapor phase mixture further comprises hydrogen.

23. (Currently Amended) A method for converting dimethylaminoethoxyethanol to an amino ether amine, the method comprising:

contacting a catalyst with hydrogen gas to produce an activated catalyst; and

contacting the activated catalyst with a vapor phase mixture comprising dimethylaminoethoxyethanol and at least one of methylamine ~~and~~ dimethylamine;

wherein the catalyst comprises the following materials in the following amounts, based on total catalyst weight:

20 to 70 wt% copper oxide,

20 to 65 wt% zinc oxide, and

0.3 to 1.5 wt% of at least one of potassium ~~and~~ or cesium.